

How to change front wheel bearing on BMW E82 – replacement guide

 VIDEO TUTORIAL

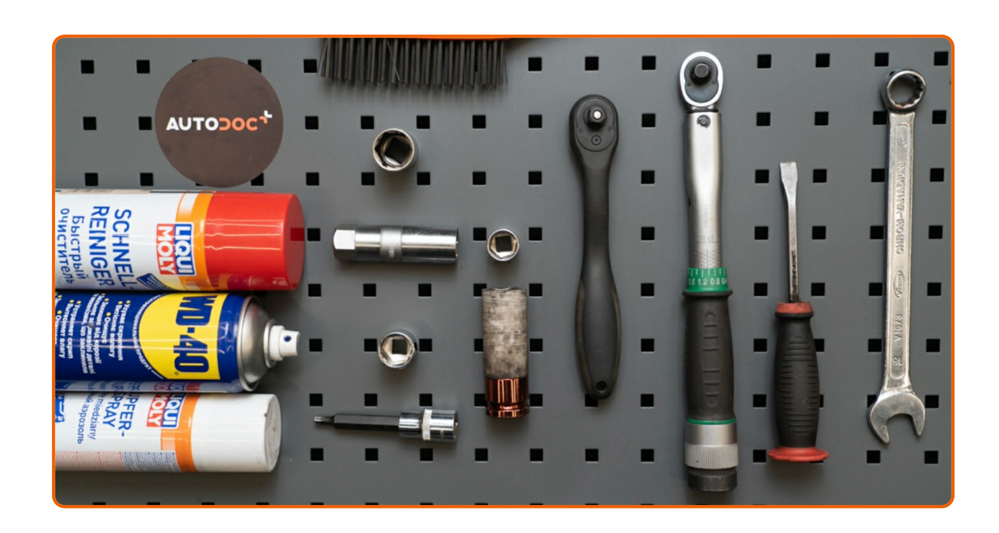
Important!

This replacement procedure can be used for:
BMW 1 (E81) 130 i, BMW 1 (E87) 130 i, BMW 1 Convertible (E88) 125 i, BMW 1 Coupe (E82) 125 i, BMW 3 (E90) 330 i, BMW 3 Coupe (E92) 330 i, BMW Z4 Roadster (E85) 3.0 si, BMW Z4 Roadster (E89) sDrive 30 i

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The steps may slightly vary depending on the car design.

REPLACEMENT: WHEEL BEARING – BMW E82. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #18
- HEX bit no.H6.
- Drive socket # 15
- Drive socket # 18
- Drive socket # 21
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Shock absorber socket
- Tap wrench
- Vice
- Crow bar
- Hydraulic transmission jack
- Wheel chock

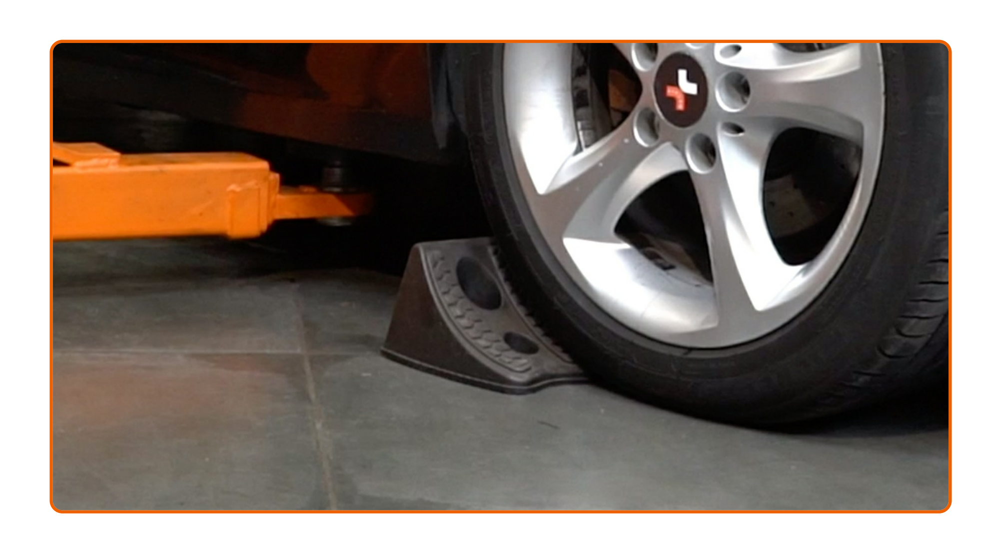


Replacement: wheel bearing – BMW E82. AUTODOC recommends:

- Do not re-use the bearing assembly of your BMW E82 car.
- The wheel hub bearing replacement procedure is identical for both wheels on the same axle.
- Warning! Shut down the engine before starting any work – BMW E82.

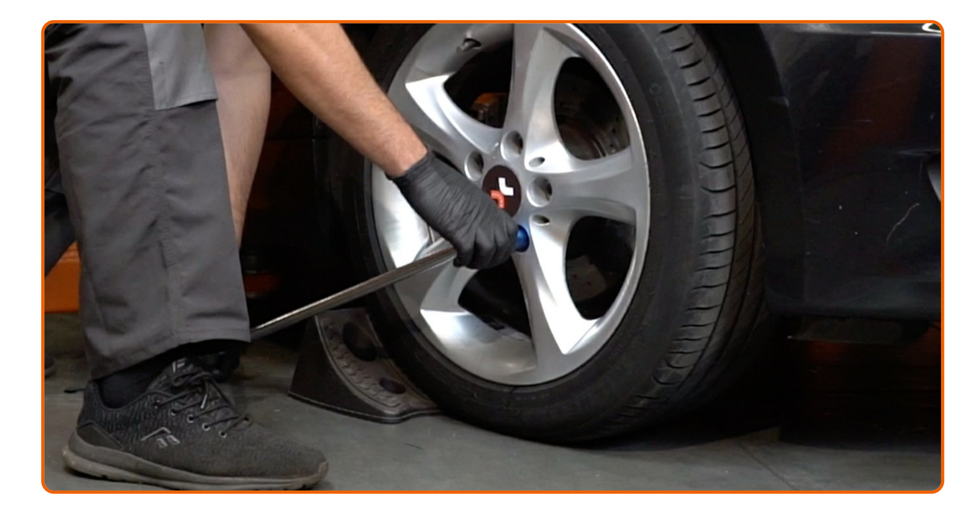
CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1



Secure the wheels with chocks.

2



Loosen the wheel mounting bolts. Use wheel impact socket #17.

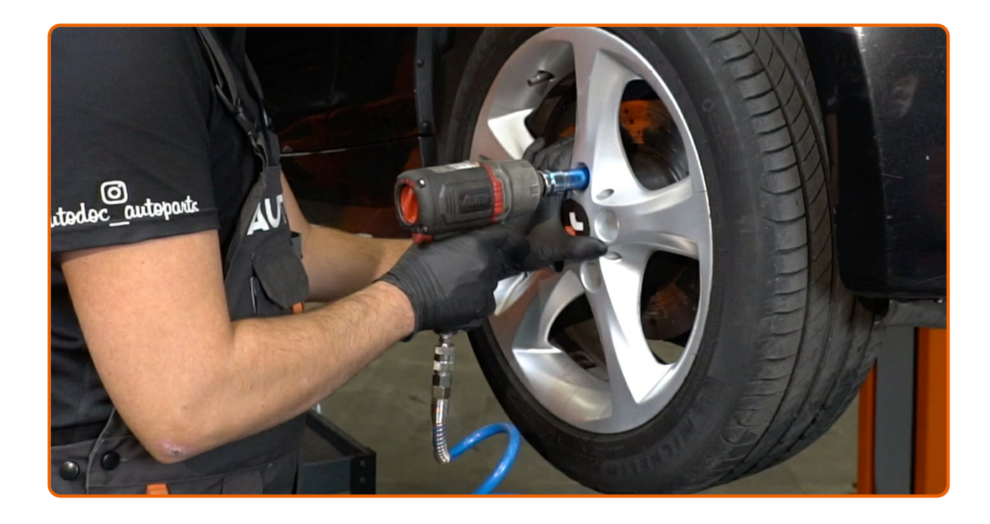
3



Raise the front of the car and secure on supports.



4

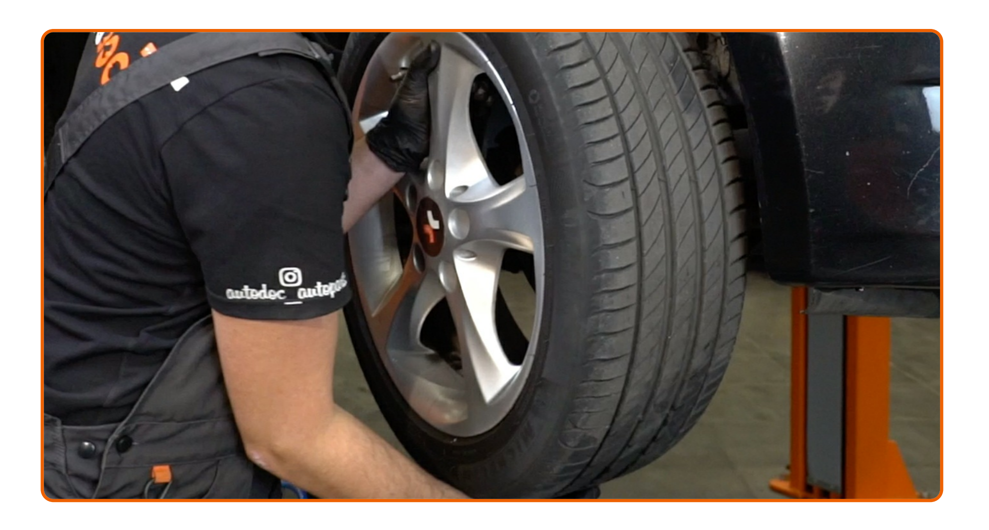


Unscrew the wheel bolts.

Replacement: wheel bearing – BMW E82. Tip from AUTODOC:

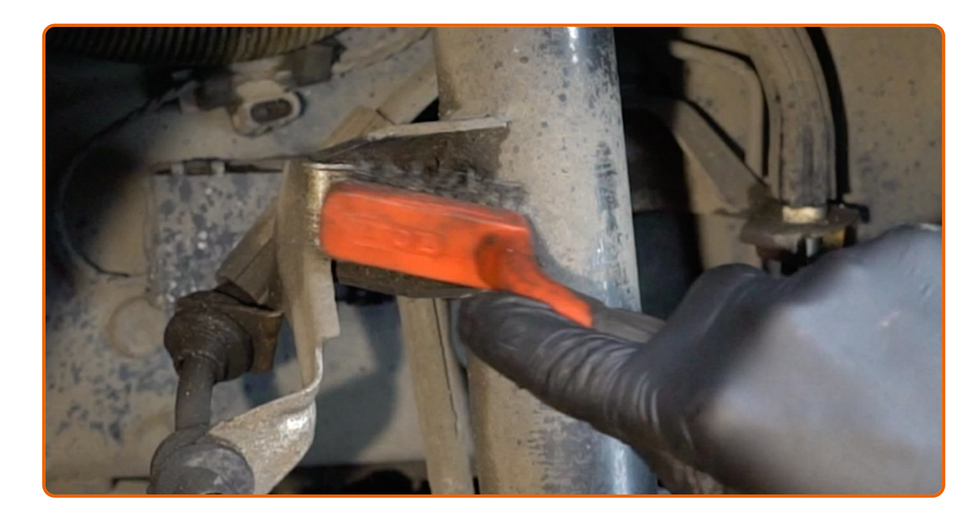
- To avoid injury, hold up the wheel when unscrewing the bolts.

5



Remove the wheel.

6



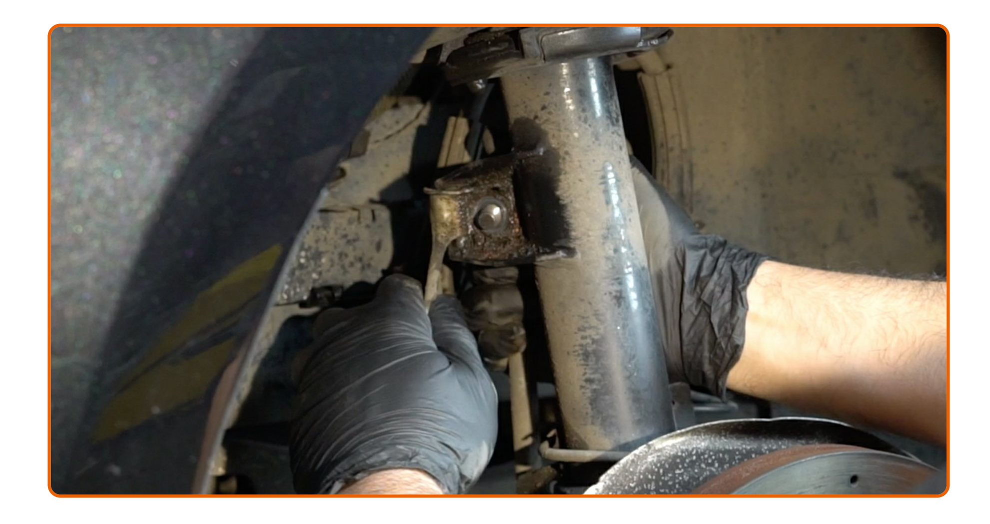
Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.

7



Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #18. Use a drive socket #15. Use a ratchet wrench.

8



Remove the stabilizer rod.

9



Disconnect the ABS sensor wiring.



10



Detach the ABS sensor connector.

11



Spread the brake pads. Use a crowbar.

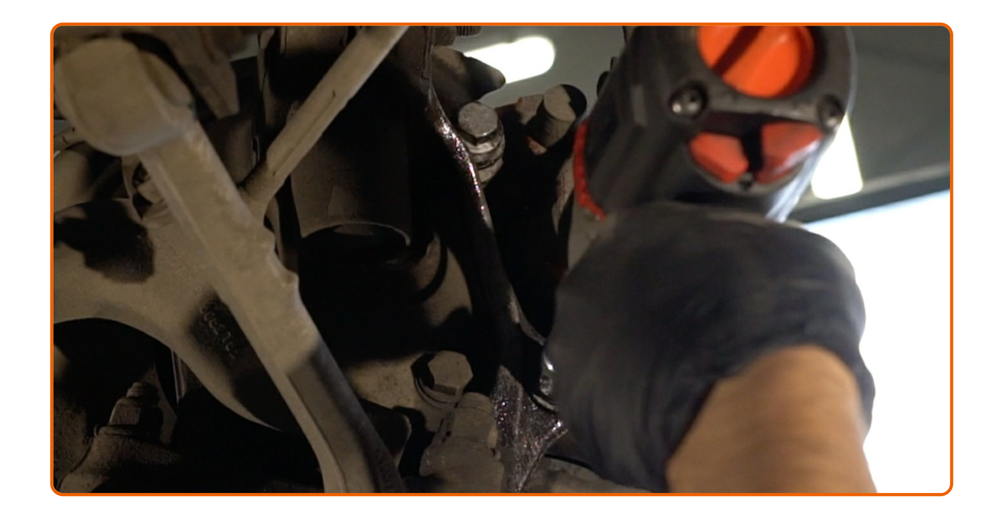


12



Clean the brake caliper bracket fasteners. Use a wire brush. Use WD-40 spray.

13



Unscrew the caliper bracket fastening. Use a drive socket #18. Use a tap wrench.

14

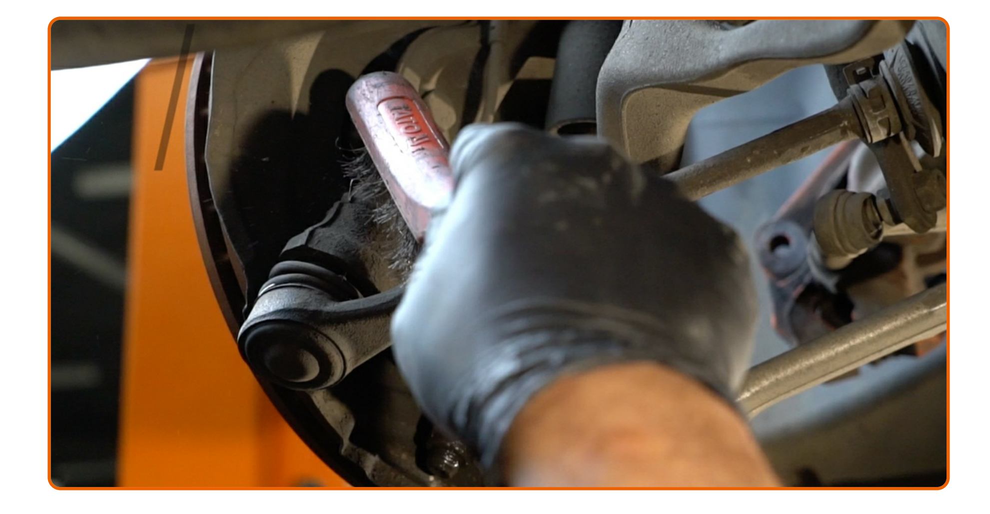


Remove the brake caliper together with its bracket.

Replacement: wheel bearing – BMW E82. Professionals recommend:

- Tie the caliper to the suspension or to the body with a wire without disconnecting from the brake hose to prevent depressurization of the brake system.
- Make sure that the brake caliper is not hanging on the brake hose.
- Don't press the brake pedal after the brake caliper has been removed. As a result, the piston can fall out from the brake cylinder, and brake fluid leakage and depressurization of the system may occur.

15



Clean the fastener connecting the tie rod end to the steering knuckle. Use a wire brush. Use WD-40 spray.

16



Unscrew the end fastening nut to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.

17



Disconnect the tie rod end from the steering knuckle.

18



Clean all joints of the arm. Use a wire brush. Use WD-40 spray.

19



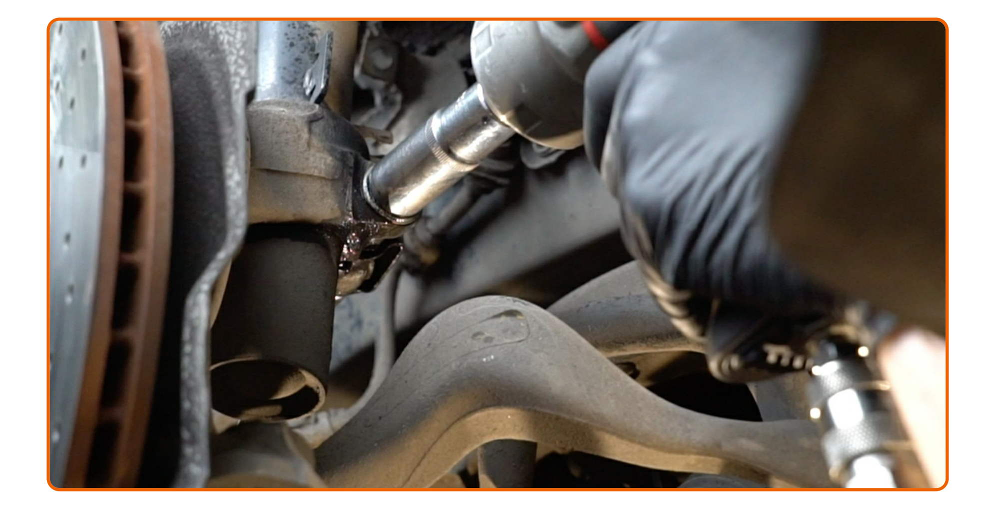
Unscrew the rear fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

20



Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.

21



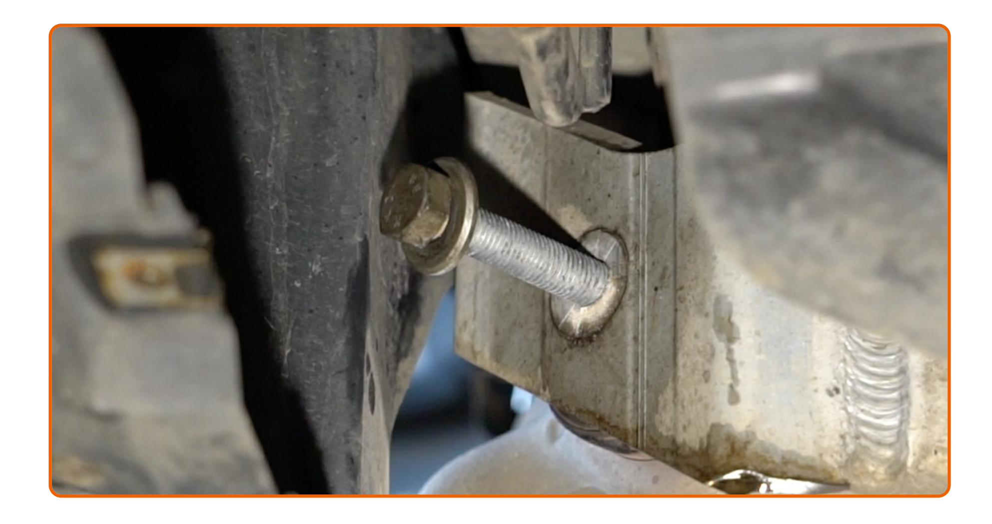
Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

22



Unscrew the front arm fastener. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

23



Remove the fastening bolts.

24



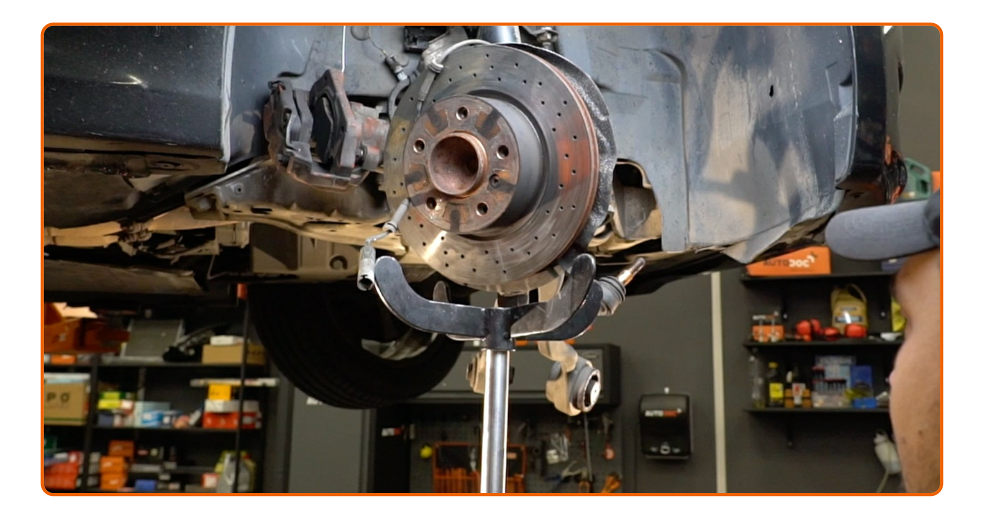
Remove the control arms. Use a crowbar.

25



Remove the fastening bolt.

26



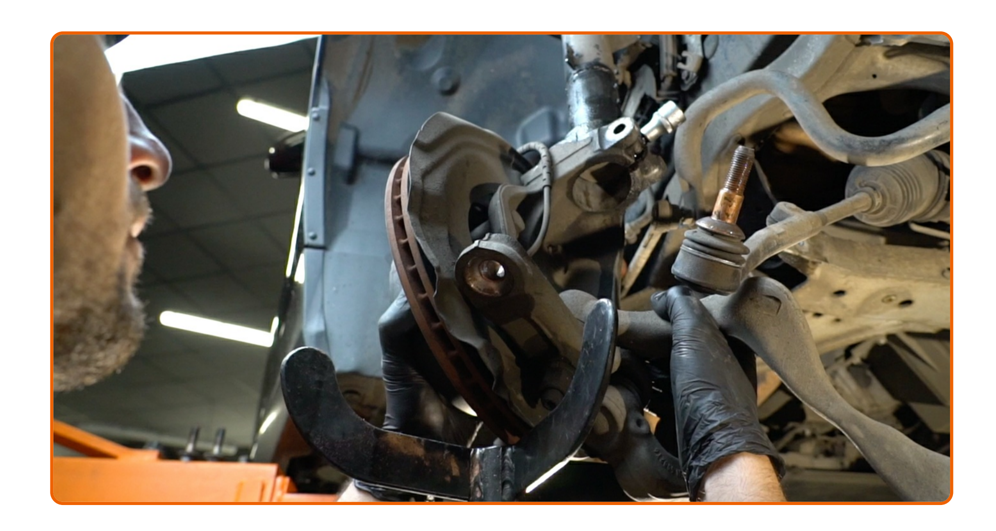
Prop up the steering knuckle. Use a hydraulic transmission jack.

27



Release the lower fastener connecting the shock strut to the steering knuckle. Use a special drive socket to remove the shock absorber. Use a ratchet wrench.

28

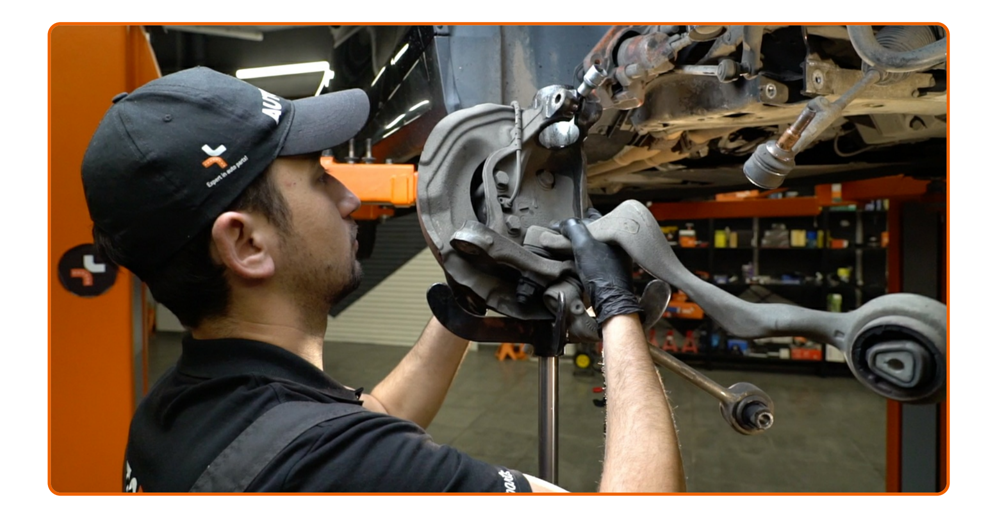


Lower the hydraulic transmission jack by 10-15 cm.

AUTODOC recommends:

- BMW E82 – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

29

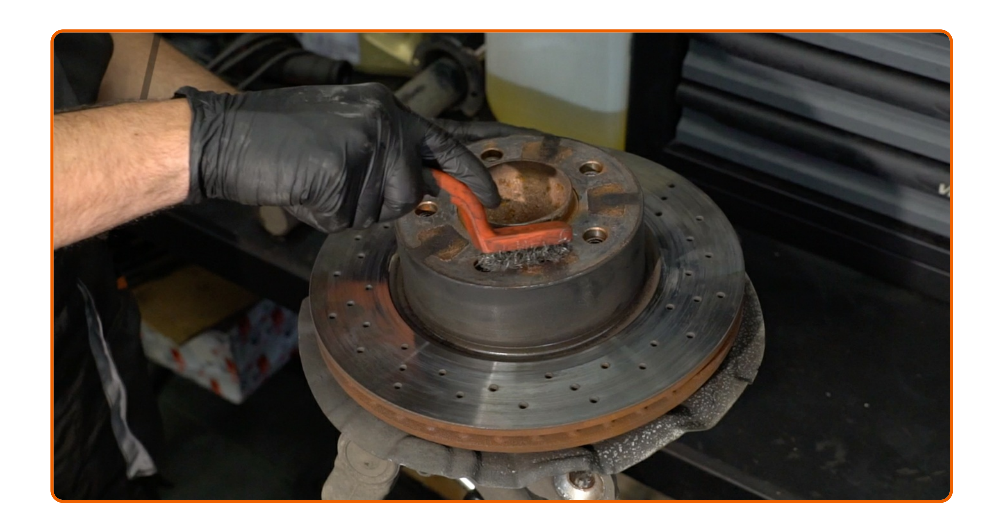


Disconnect the steering knuckle from the shock absorber strut.

30

Place the steering knuckle assembled with the wheel hub in a vice.

31



Clean the brake disc fasteners. Use a wire brush. Use WD-40 spray.

32



Unscrew the brake disc fastening. Use HEX No.H6. Use a ratchet wrench.

33



Remove the brake disc.

34



Clean the wheel hub fastener. Use a wire brush. Use WD-40 spray.

35



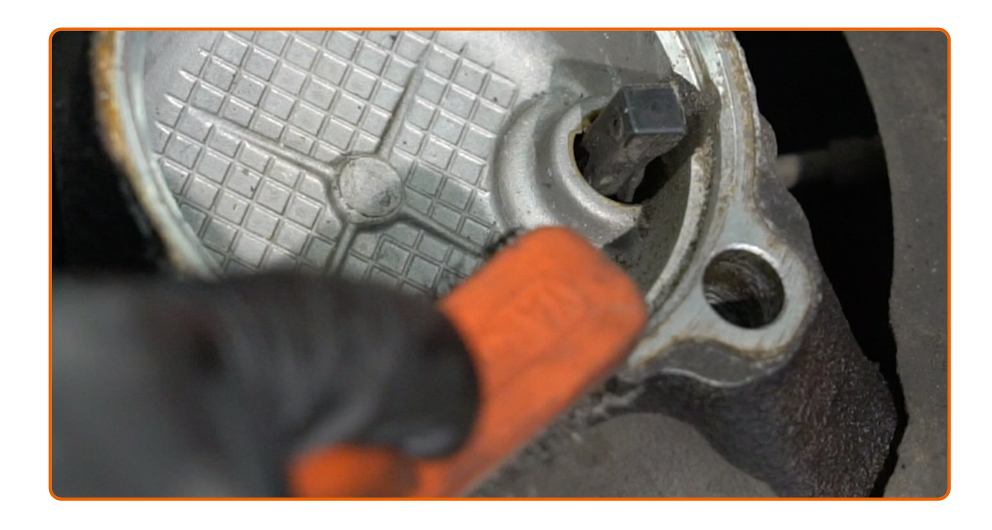
Unscrew the wheel hub axle nut. Use a drive socket #18. Use a ratchet wrench.

36



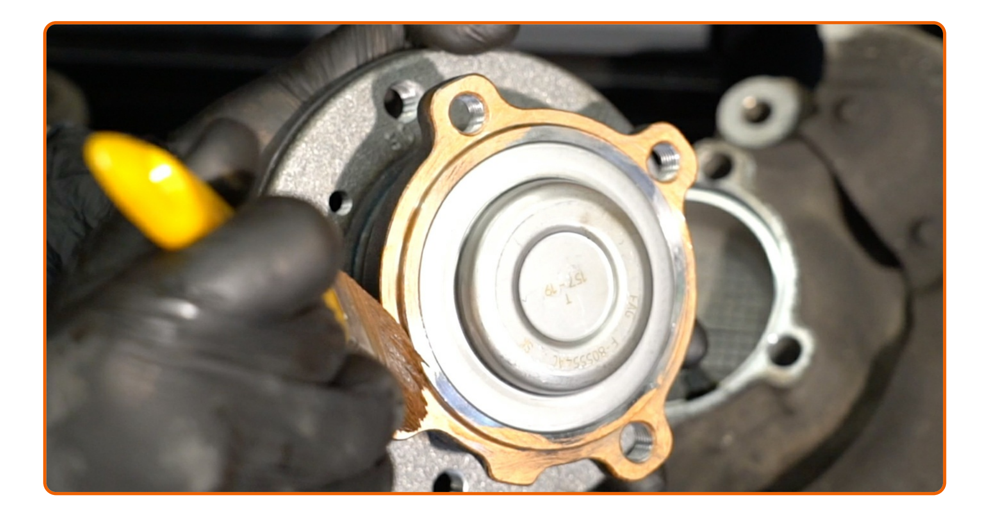
Remove the hub and the bearing together, since they are a sealed unit.

37



Clean the wheel hub mounting seat. Use a wire brush. Use WD-40 spray.

38



Treat the wheel hub mounting seat. Use copper grease.

39



Install the new wheel hub with a bearing.

40



Tighten the hub. Use a drive socket #18. Use a torque wrench. Tighten it to 81 Nm torque.

Replacement: wheel bearing – BMW E82. AUTODOC experts recommend:

- The wheel bearing unit must not tilt on the axle pin.

41



Treat the hub where it contacts the brake disk. Use copper grease.

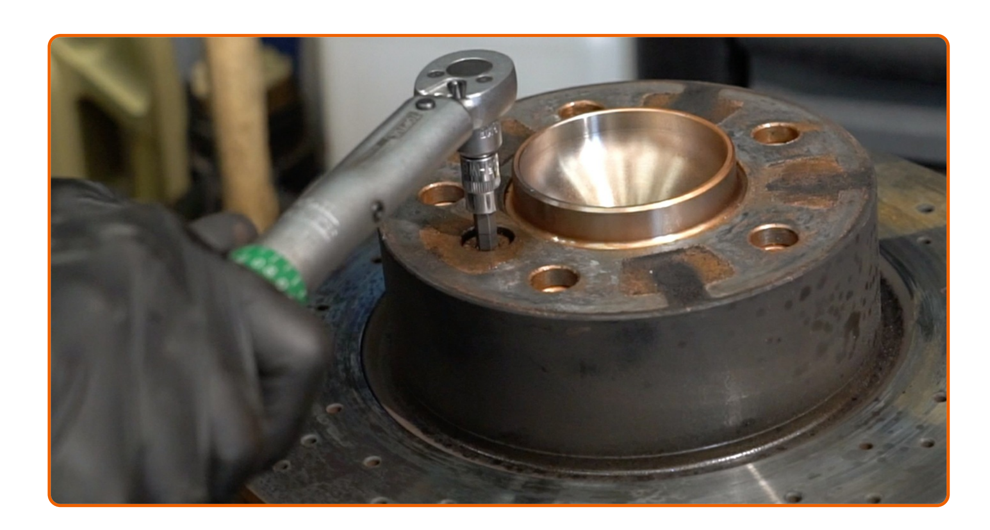


42



Install the brake disc.

43

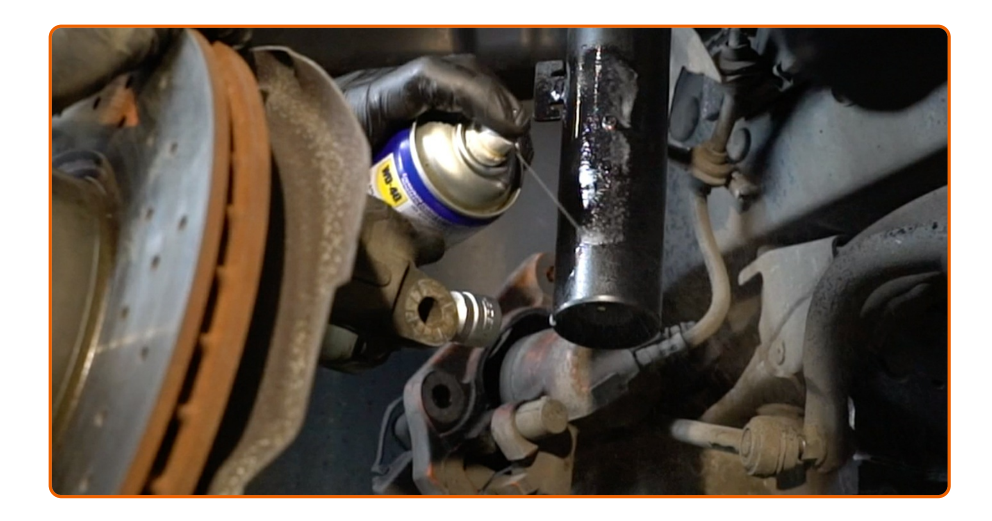


Tighten the brake disc fastening. Use HEX No.H6. Use a torque wrench. Tighten it to 9 Nm torque.

44

Release the vice and remove the steering knuckle assembled with the wheel hub.

45



Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.

46



Fix the shock absorber strut on the steering knuckle.



47



Install the fastening bolt.

48



Remove the support from under the steering knuckle.

AUTODOC recommends:

- Replacement: wheel bearing – BMW E82. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

49



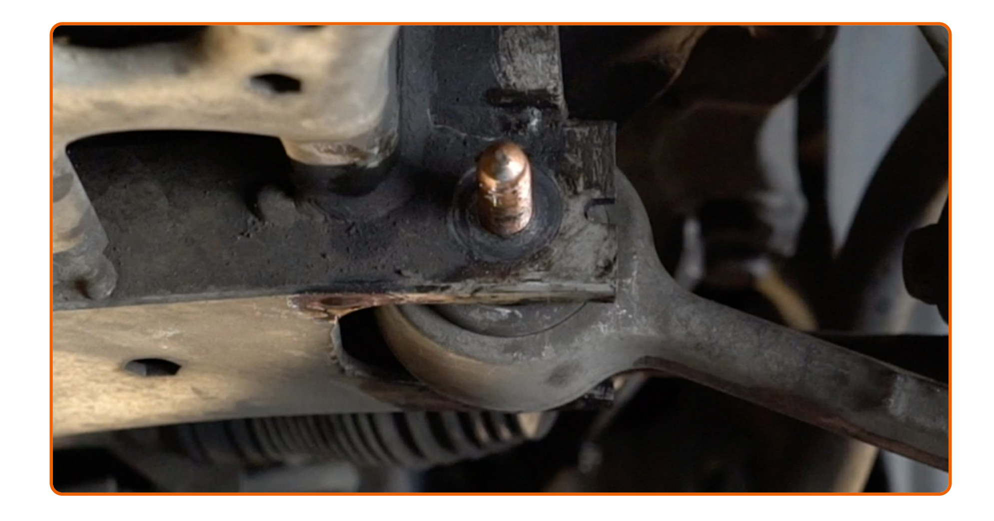
Clean the mounting seats and the thread of the suspension arm. Use a wire brush. Use WD-40 spray.

50



Install the control arms.

51



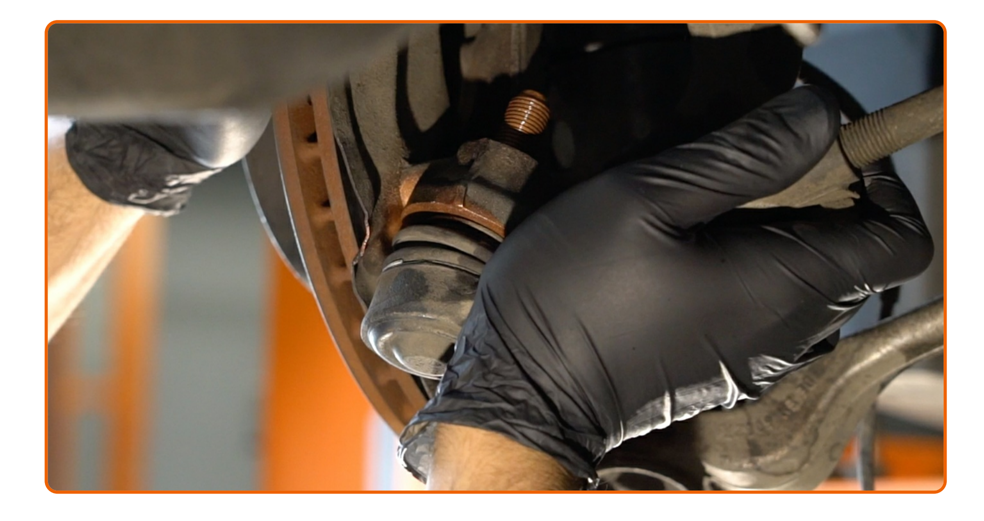
Install the fastening bolts.

52



Clean the mounting seats of the tie rod end. Use a wire brush. Use WD-40 spray.

53



Connect the tie rod end to the steering knuckle.

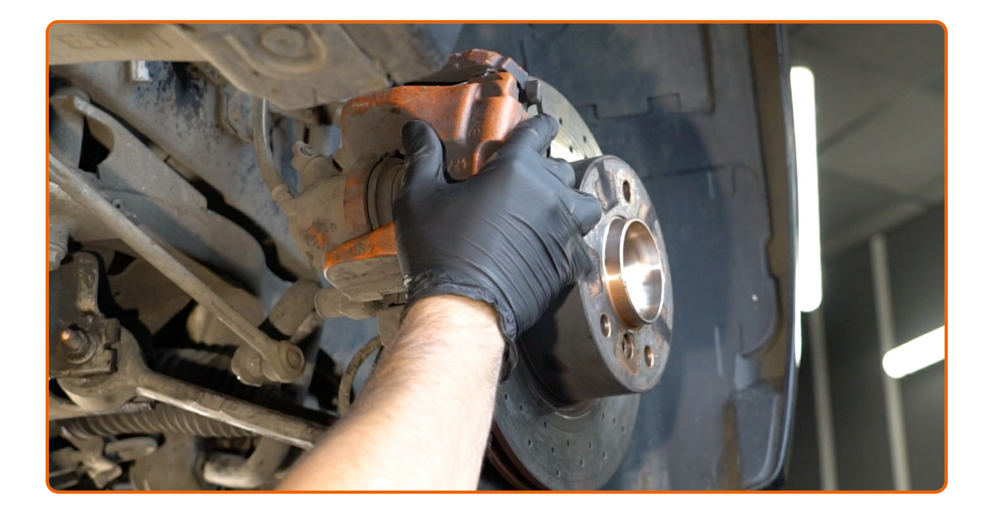
54



Screw on the fastening nut that connects the tie rod end to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.

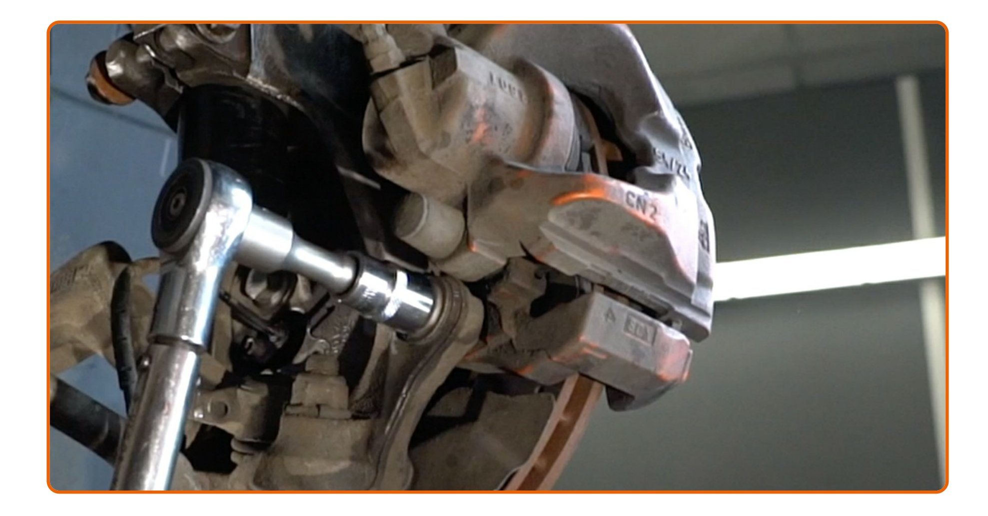


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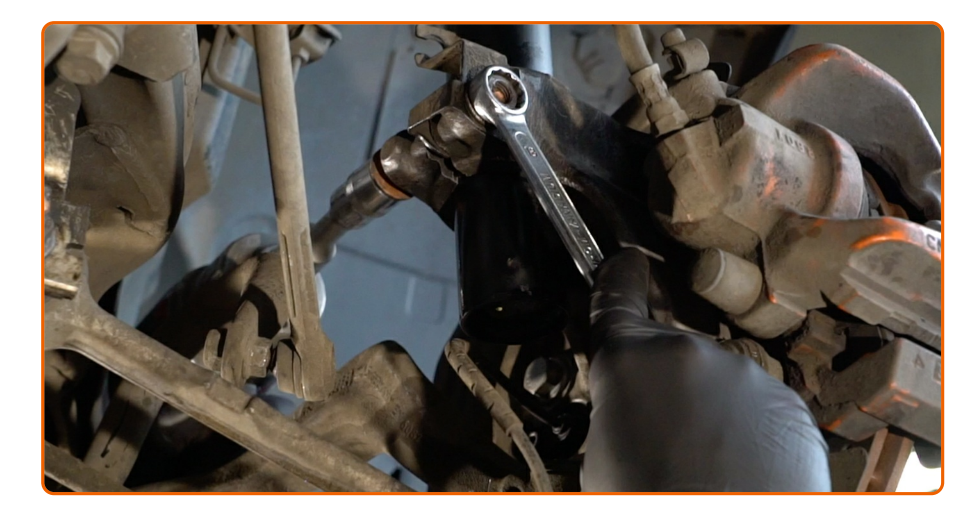
Install the brake caliper together with its bracket.

56



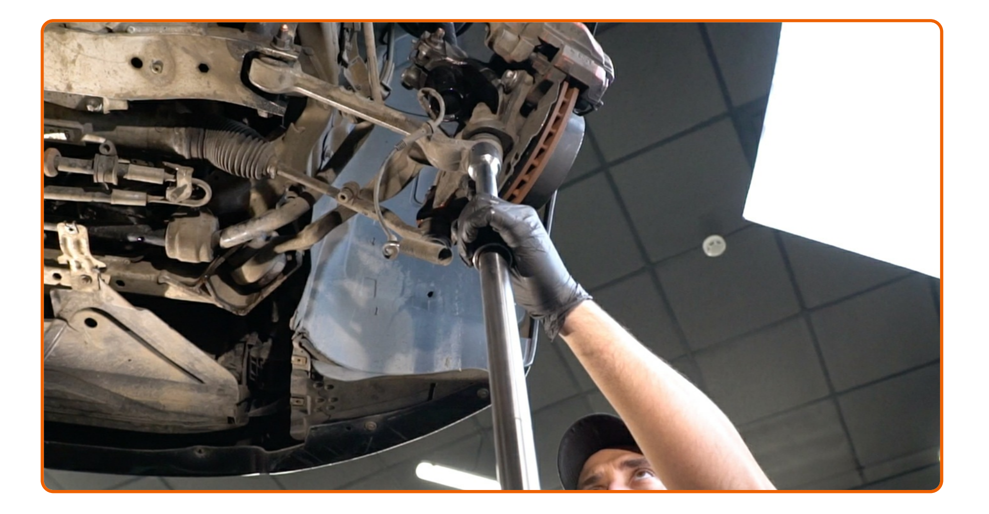
Tighten the brake caliper bracket. Use a drive socket #18. Use a torque wrench. Tighten it to 105 Nm torque.

57



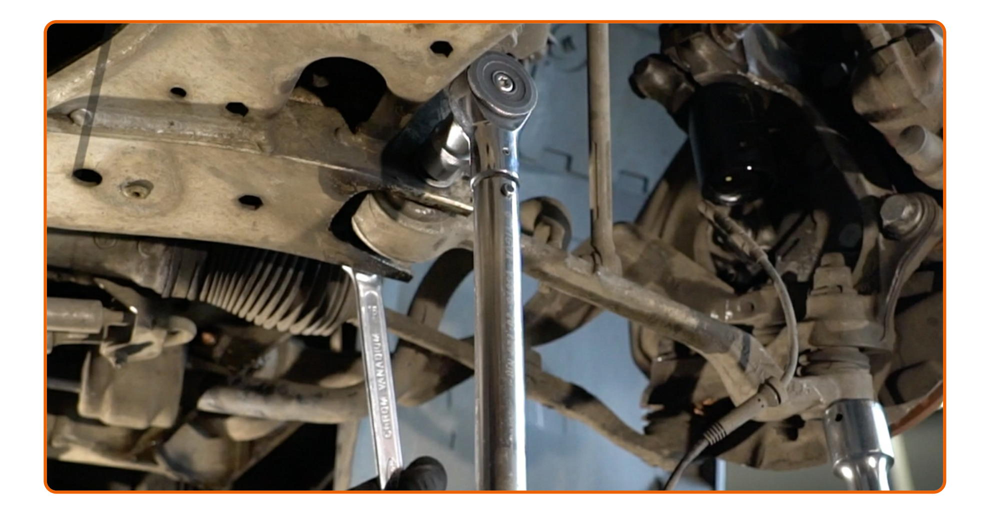
Screw in the fastener that connects the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

58



Support the arm. Use a hydraulic transmission jack.

59



Tighten the rear fastener of the control arm. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 89 Nm torque.

60



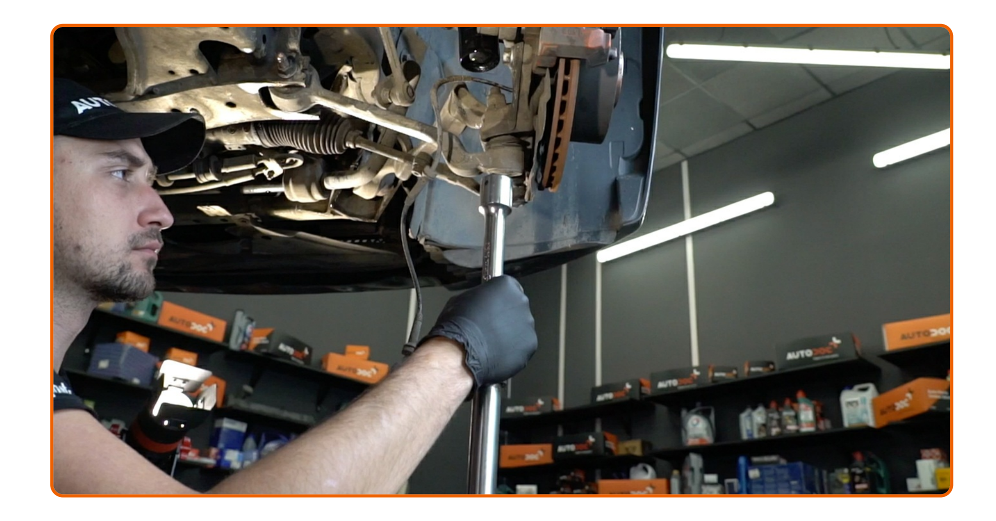
Tighten the front fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 89 Nm torque.

61



Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 82 Nm torque.

62



Remove the support from under the arm.

Replacement: wheel bearing – BMW E82. Tip from AUTODOC experts:

- Lower the hydraulic transmission jack smoothly, without jerks, to avoid damaging assemblies and mechanisms.

63



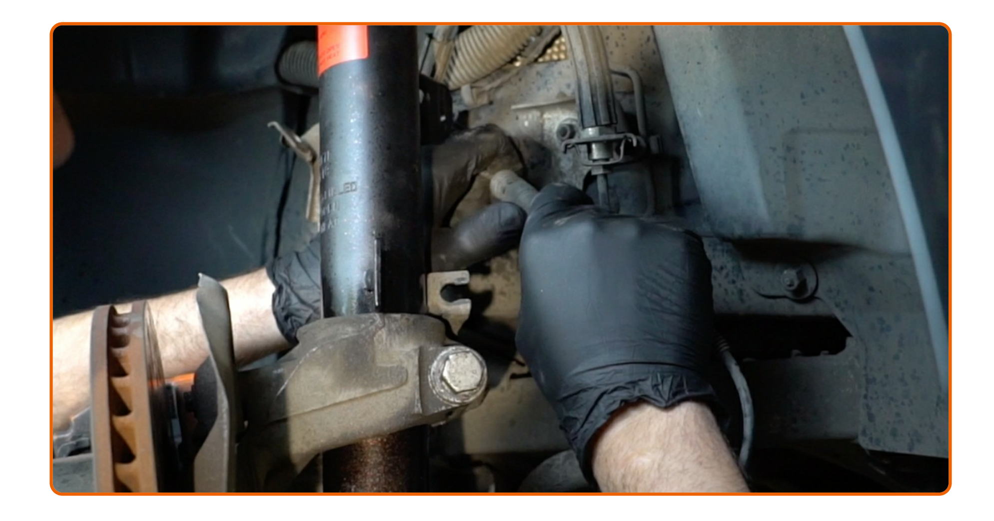
Tighten the fastening nut connecting the tie rod end to the steering knuckle. Use a drive socket #21. Use a torque wrench. Tighten it to 90 nm torque.

64



Attach the ABS sensor connector.

65



Connect the ABS sensor wiring.

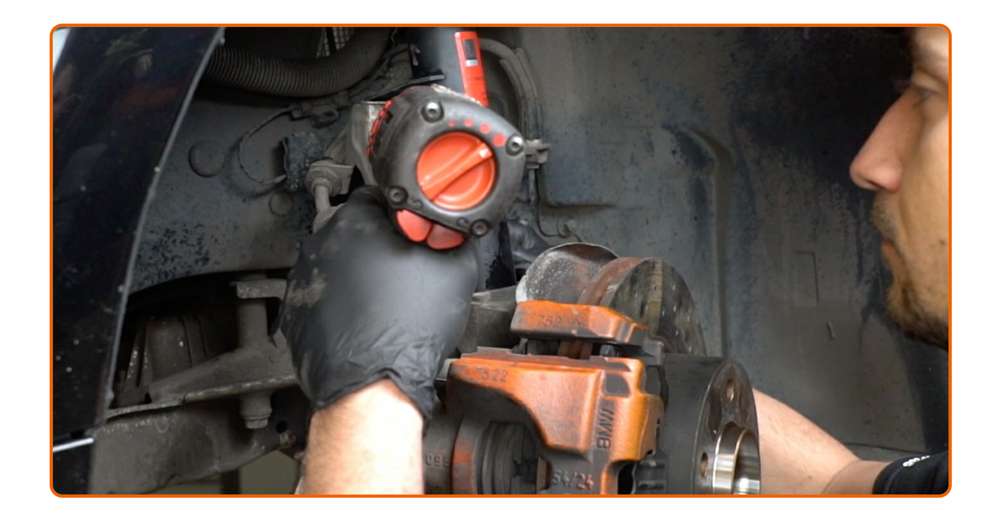
66



Install the transverse stabilizer link.

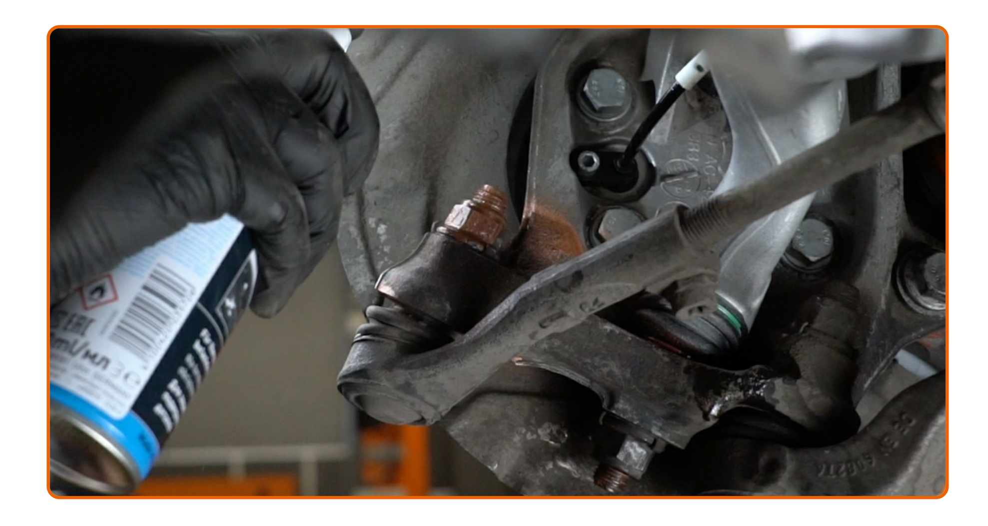


67



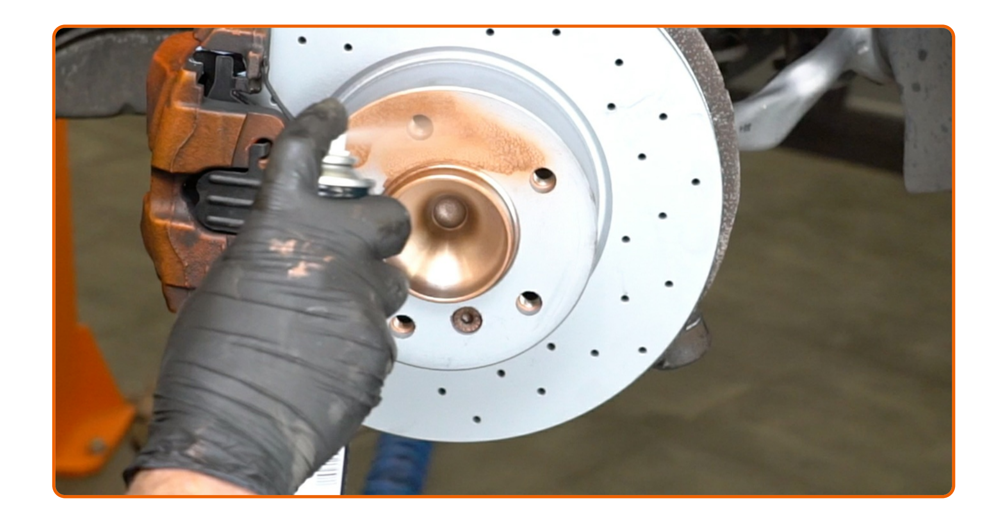
Tighten the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #18. Use a drive socket #15. Use a torque wrench. Tighten it to 65 Nm torque.

68



Treat all joints of the arm. Treat the shock strut fasteners. Use copper grease.

69



Treat the surface where the brake disc contacts the wheel rim. Use copper grease.

70



Clean the brake disk surface. Use a brake cleaner.

Replacement: wheel bearing – BMW E82. Tip:

- After applying the spray, wait a few minutes.

71



Install the wheel.

AUTODOC recommends:

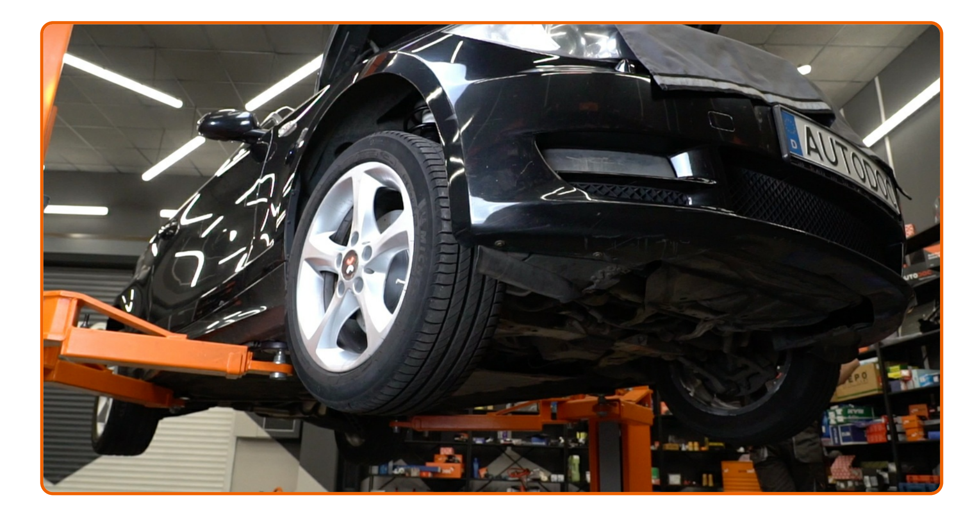
- Important! Hold the wheel while screwing in the fastening bolts.
  BMW E82

72



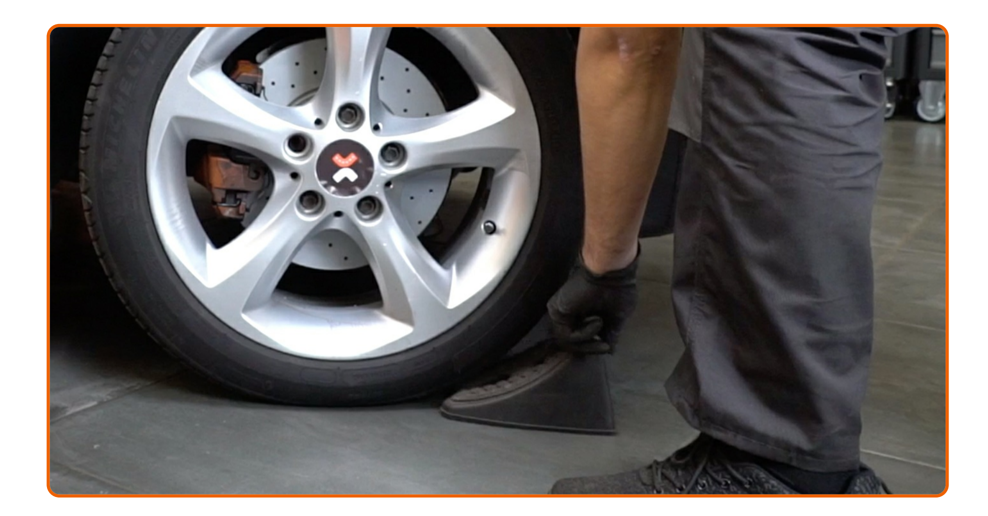
Screw in the wheel bolts. Use wheel impact socket #17.

73



Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 nm torque.

74



Remove the jacks and chocks.

AUTODOC recommends:

- BMW E82 – Without starting the engine, press the brake pedal several times until it feels firm.

DID YOU FIND THESE INSTRUCTIONS HELPFUL?

YES

NO

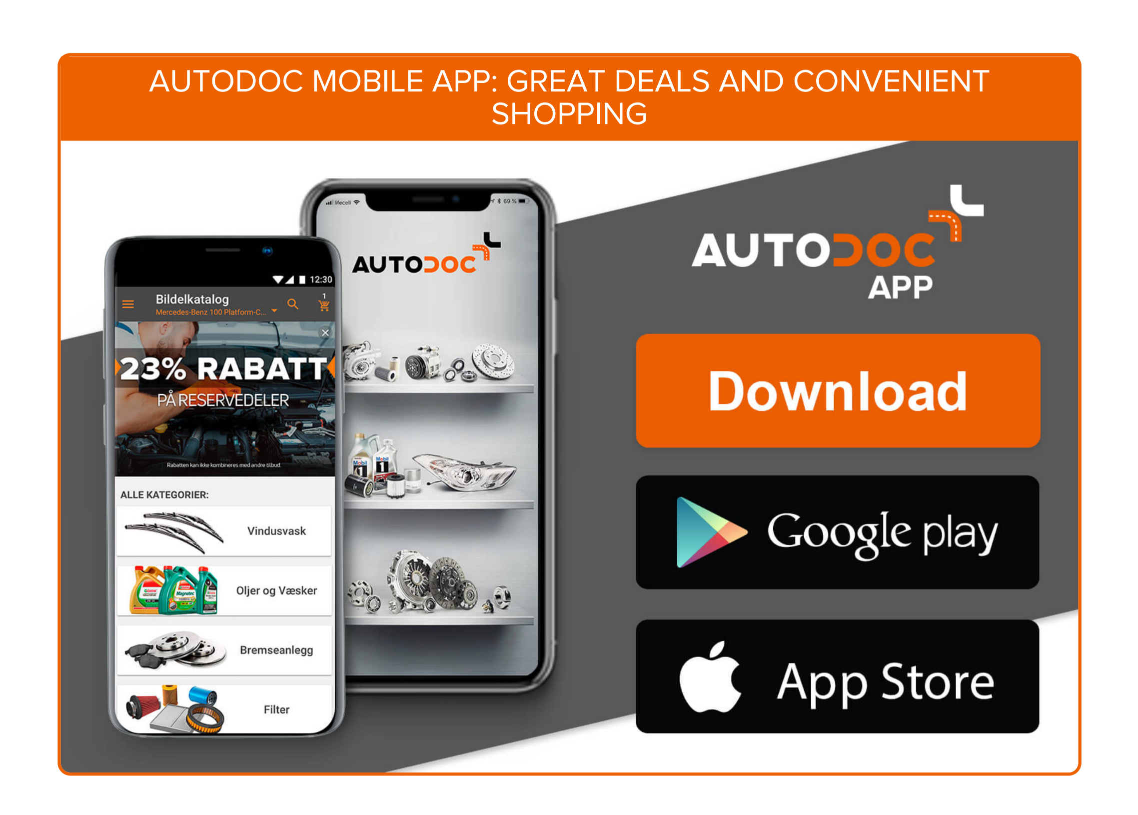


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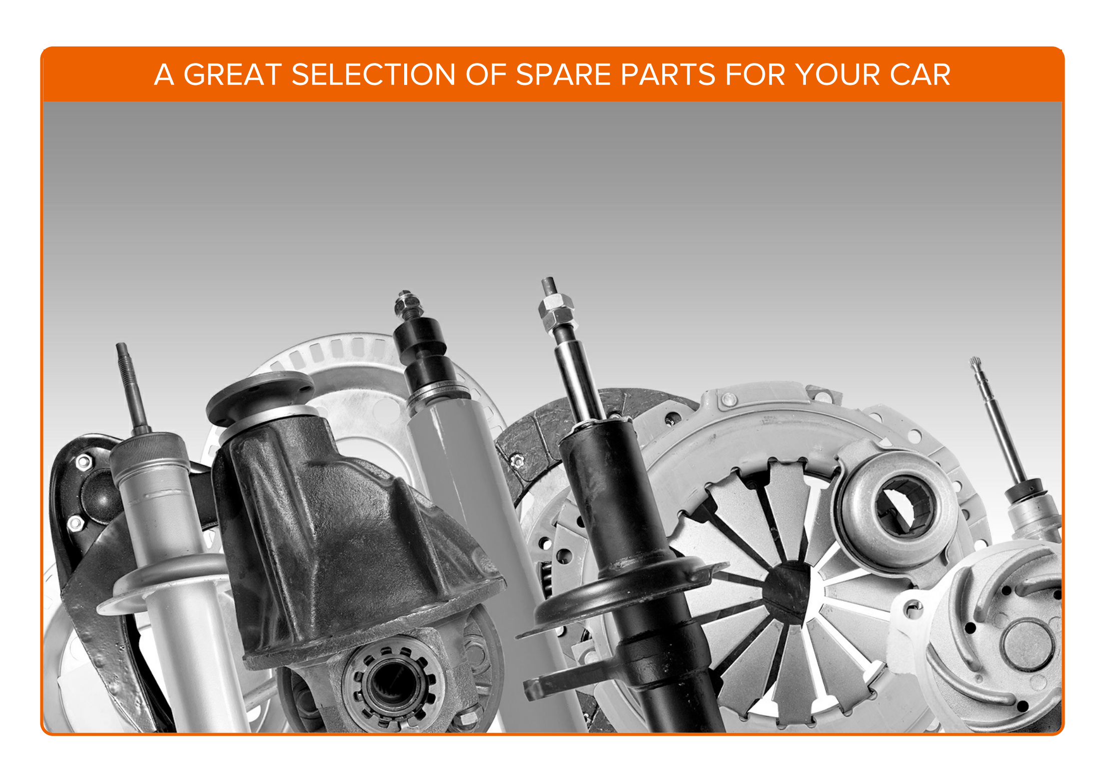


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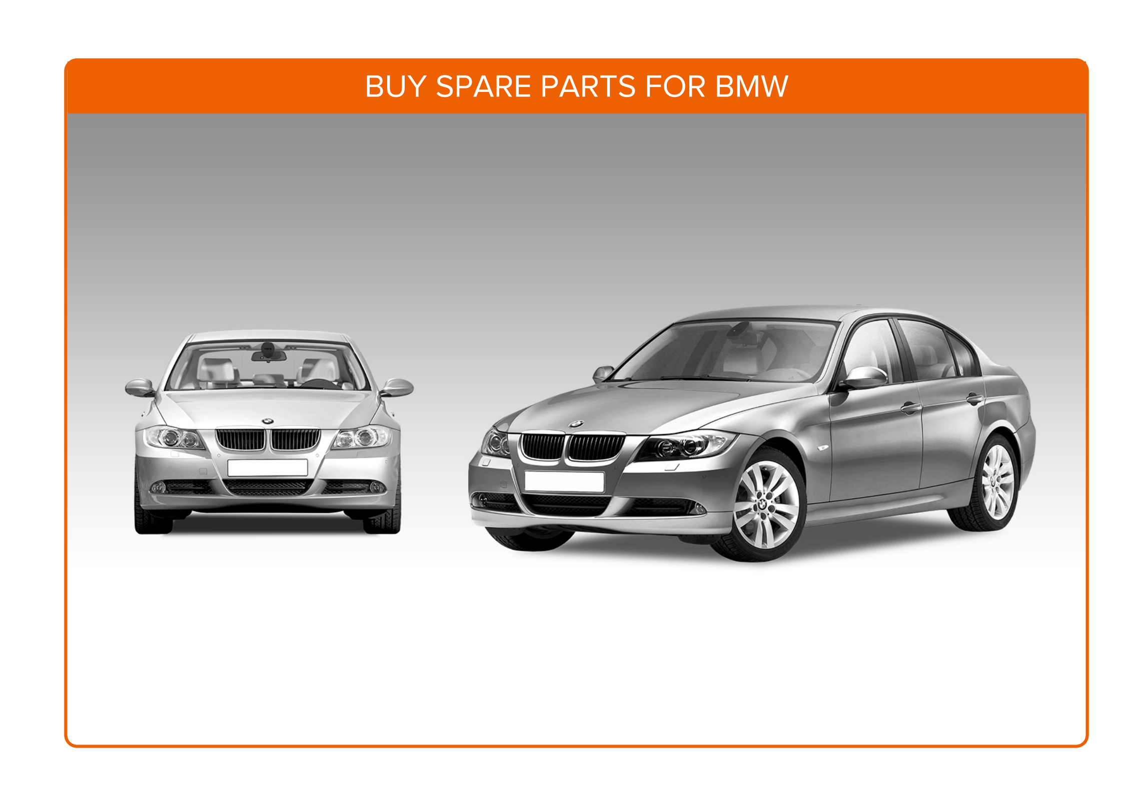
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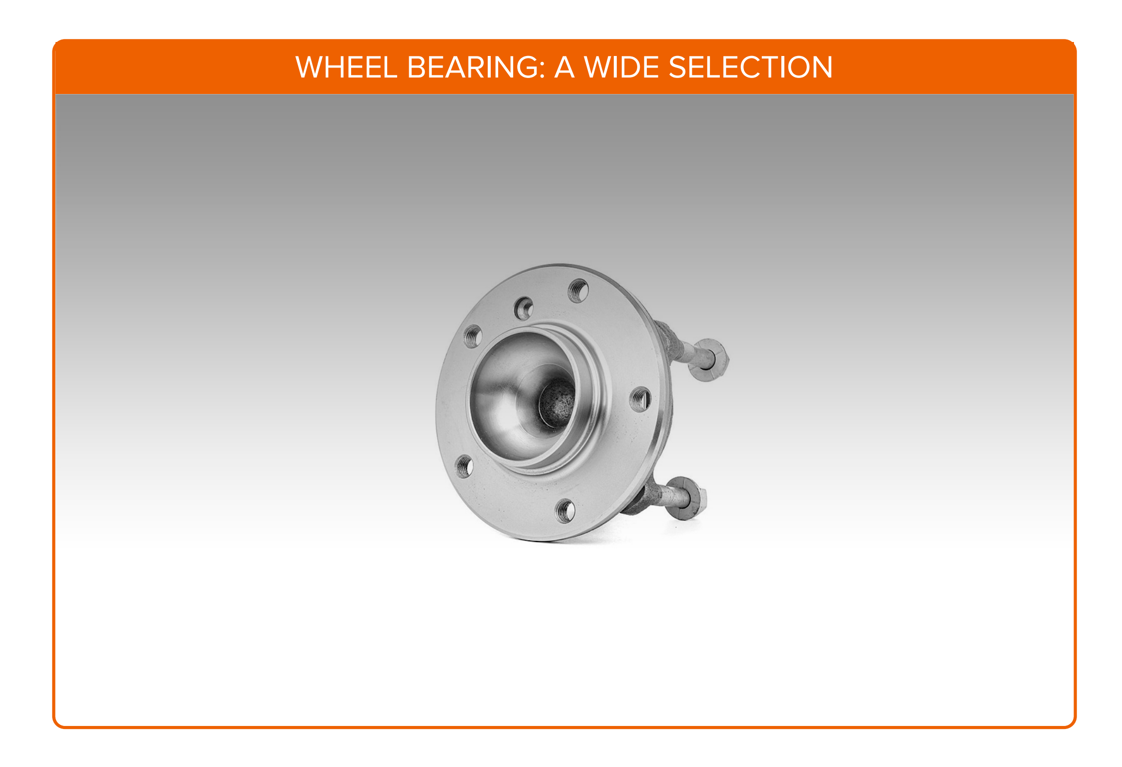


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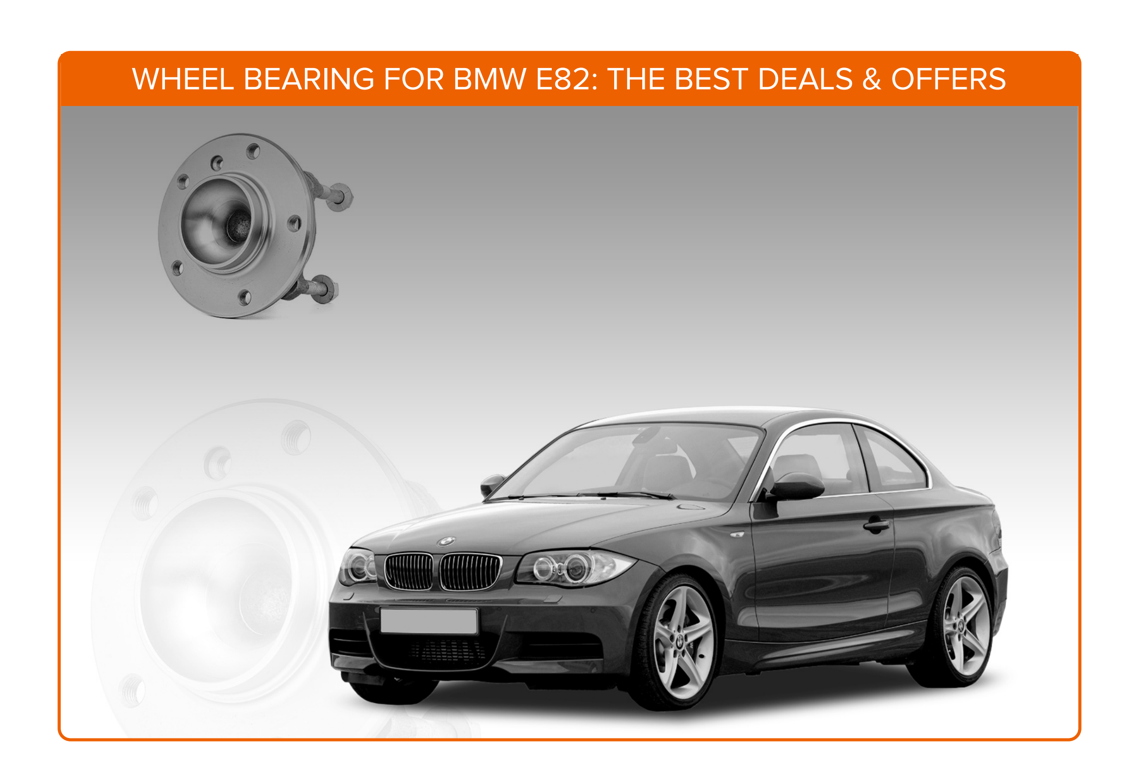

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